

REMARKS**Summary of the Office Action**

Claims 1-6, 8-11, 13, 15 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Then et al. (U.S. Patent No. 5,568,013) (hereinafter "Then") in view of Burlefinger et al. (U.S. Patent No. 6,492,657) (hereinafter "Burlefinger").

Summary of the Response to the Office Action

Applicants have newly-amended independent claim 1, and dependent claims 2-3 and 9, and have also added new dependent claim 23, to differently describe embodiments of the disclosure of the instant application. Applicants have canceled claim 8 without prejudice or disclaimer. Accordingly, claims 1-6, 9-11, 13, 15, 17 and 23 remain currently pending and under consideration.

Rejections under 35 U.S.C. § 103(a)

Claims 1-6, 8-11, 13, 15 and 17 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Then in view of Burlefinger. Applicants have newly-amended independent claim 1, and dependent claims 2-3 and 9, to differently describe embodiments of the disclosure of the instant application. To the extent that these rejections might be deemed to still apply to the remaining claims as newly-amended, they are respectfully traversed for at least the following reasons.

Applicants respectfully submit that it is apparent from the Office Action that the Examiner considers that the "flat part" features included in independent claim 1 of the instant application can include the flat part (bottom of the depressed portion) of substrate 98 and a

different flat part (top edge) of the substrate 98. In this regard, in newly-amended independent claim 1, the wording "flat part of said glass substrate" has been replaced with the wording "flat part of said inner wall." Applicants respectfully submit that the claimed inner wall is a surface defining an internal space of the enclosure that is maintained in a vacuum state. Because the trenches 16 are not arranged on and in direct contact with any part of the inner wall, Applicants respectfully submit that the claimed "flat part" of the instant application is clearly distinguished from the part where the trenches 16 are arranged.

In addition, it is noted that even if Examiner considers that the trenches 16 are arranged on and in direct contact with the flat part of the inner wall, Applicants believe that the arrangement, as specifically described in the combination of features of independent claim 1 of the instant application, is still clearly distinguished from the disclosure of Then by the last section of newly-amended independent claim 1. In this regard, Applicants respectfully submit that the claimed electron multiplier section and the anode are arranged on a common flat part, and these members are separated along a direction orthogonal to an incidence direction of the light. In contrast thereto, Applicants respectfully submit that the device disclosed in Then is obtained by laminating the multiplier 40 including the trenches 16 and the substrate 98. As a result, Applicants note that the trenches 16 and the anode 104 arranged on the bottom of the depression of the substrate 98 overlap each other when viewing them along the incidence direction of the light.

As described above, in the device disclosed in Then, the orbits of the multiplied electrons traveling from the trenches 16 to the anode 104 are bent at approximately a right angle. In this case, Applicants respectfully submit that there is a possibility that the variations of electron orbits occur and a temporal property of the whole device disclosed in Then deteriorates. In

addition, Applicants respectfully submit that the loss probability of multiplied electrons may become large because it not necessarily the case that the multiplied electrons conveniently bend toward the anode 104.

In contrast thereto, as defined in the advantageous combination of features of newly-amended independent claim 1 of the instant application, Applicants respectfully submit that based on the positional relation between the claimed electron multiplier section and the anode, the electrons multiplied in the electron multiplier section travel in a straight line toward the anode. Accordingly, Applicants respectfully submit that the advantageous combination of features as described in independent claim 1 of the instant application results in an arrangement in which there is no problem that results due to electron orbit bending.

Accordingly, Applicants respectfully assert that the rejections under 35 U.S.C. § 103(a) should be withdrawn because Then and Burlefinger, whether taken separately or combined, do not teach or suggest each feature of newly-amended independent claim 1 of the instant application. As pointed out by MPEP § 2143.03, “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.’ In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).” Since the prior art does not disclose or suggest any of the combinations recited in Applicants’ claims, and if anything appears to teach away from the current claim recitations, KSR Int’l Co. v. Teleflex Inc., 127 S.Ct. 1727 (2007), Applicants submit that such recited combinations would not have been obvious in view of the applied references of record, whether taken alone or combined in the manner suggested by the Examiner in the Office Action.

Furthermore, Applicants respectfully assert that the dependent claims 2-6, 9-11, 13, 15, 17, and also newly added dependent claim 23, are allowable at least because of their dependence from independent claim 1, and the reasons discussed previously.


CONCLUSION

In view of the foregoing, Applicants submit that the pending claims are in condition for allowance, and respectfully request reconsideration and timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution. A favorable action is awaited.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

DRINKER BIDDLE & REATH LLP



Paul A. Fournier
Reg. No. 41,023

Dated: June 16, 2010

By:

Customer No. 055694
DRINKER BIDDLE & REATH LLP
1500 K Street, N.W., Suite 1100
Washington, DC 20005-1209
Tel.: (202) 842-8800
Fax: (202) 842-8465